(NOT FOR PUBLICATION)

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
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U. S. Department of Agriculture
Forest Service

Targhee National Forest
Aerial Detection Survey - Fall 1956

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TARGHEE NATIONAL FOREST
Aerial Detection Survey
Fall 1956

The Targhee National Forest was covered by an aerial survey in August and September 1956. The purpose of these examinations was to detect, locate, and describe all evidence of unusual forest insect activity. The west division of the Targhee National Forest was covered by the Boise Research Center, the east division was covered by the Forest Insect Research, Ogden, Utah.

East Division

The East Division of the Targhee National Forest was covered by an aerial survey in September. The lodgepole pine stands appeared to be free of mountain pine beetle infestation with but a few exceptions. An area outside of the national forest boundary in Shot gun and Antelope Valleys contains some mountain pine beetle activity. No definite hot spots were detected but a definite tendency toward grouping appeared. The few groups observed were all small containing 2 to 3 red topped trees and were widely scattered over a sparse open grown stand of lodgepole pine. In Moose Creek T. 3 N., R. 118 W., the mountain pine beetle is active in white bark pine and limber pine. Several small groups of 8 to 10 trees were detected. No red topped lodgepole pine was seen in the area. This area should be watched carefully to note any increase in activity that might develop in the lodgepole pine from these infested scrub white pines.

Last year in the annual survey killing of lodgepole pine around Silver Lake was reported. Additional killing was observed as we flew the area this year. The increase in the number of faded trees over those observed last year was not great. Some of the trees could have been killed by change in water level, but it is rather obvious that some other factor is present, probably Dendroctonus or Ips. The beautiful shore line of this small resort lake could be seriously affected if the killing of the trees continues at the present or an increased rate.

No active infestation of Douglas-fir beetle was detected. However, several centers of past activity were observed but in no case did it appear that recent kills were important.

In addition to the aerial survey, ground surveys were conducted in several areas reported by Targhee Forest personnel as possible infestation centers. The area in Spring Creek east of Driggs, Idaho was thought to contain Engelmann spruce beetle damage. The ground crew was, however, unable to find any infested trees containing significant broods of the Engelmann spruce beetle. The ground crew also examined the Two Top mountain sale area and determined that no appreciable Engelmann spruce beetle activity was present. It should be recognized, however, that all

logging in Engelmann spruce stands produces potential breeding areas of this bark beetle. Generally, the beetles build up in the stumps and heavy slash and will remain there as long as this material is available. The danger point usually occurs when logging is completed and green stumps and slash are no longer available. At this point if the beetles are in sufficient numbers, some green standing tree infestation may occur.

The forest requested that the ground crew check an area in the south fork of Leigh Creek, northeast of Driggs, Idaho, for mountain pine beetle infestations. Lodgepole pine trees killed at least two years ago were found, but no new attacks were observed. There is, of course, a possibility that a small amount of mountain pine beetle activity could be present and was not detected by the ground crew. However, from the air no groups of red tops were observed.

From the air it was possible to detect the presence of comandra rust on lodgepole pine. The centers of infestation were recorded. This information recorded on the comandra rust and the map showing the location of the infested area will be sent to the forest pathologist.

West Division

A ground appraisal survey covered only spruce budworm defoliation.1/ Three degrees of intensity of damage were observed in the aerial surveys - light, medium and heavy defoliation, and only budworm damage of the current year was observed and recorded from the air. Bark beetle damage was also observed and recorded by the aerial survey. The aerial detection records only the damage of the past year and not the new infestation. The attached map shows the flight lines and the centers of infestation detected. A description of each area located by the aerial survey is as follows:

Area A. This area lies northeast of Spencer, Idaho, and extends westward to the Middle Creek and between Pleasant Valley and the south boundary of the forest. There are approximately 31,000 acres of budworm damage. However, only about 11,000 acres are heavily defoliated. The remaining acres range from light to medium damage.

Area B. Area B lies to the north and borders the area sprayed in 1956. Approximately 45,000 acres are infested with spruce budworm. Of this total 15,000 acres are lightly defoliated and 30,000 acres medium defoliation. In the Porcupine Pass area the infestation appears rather sporadic.

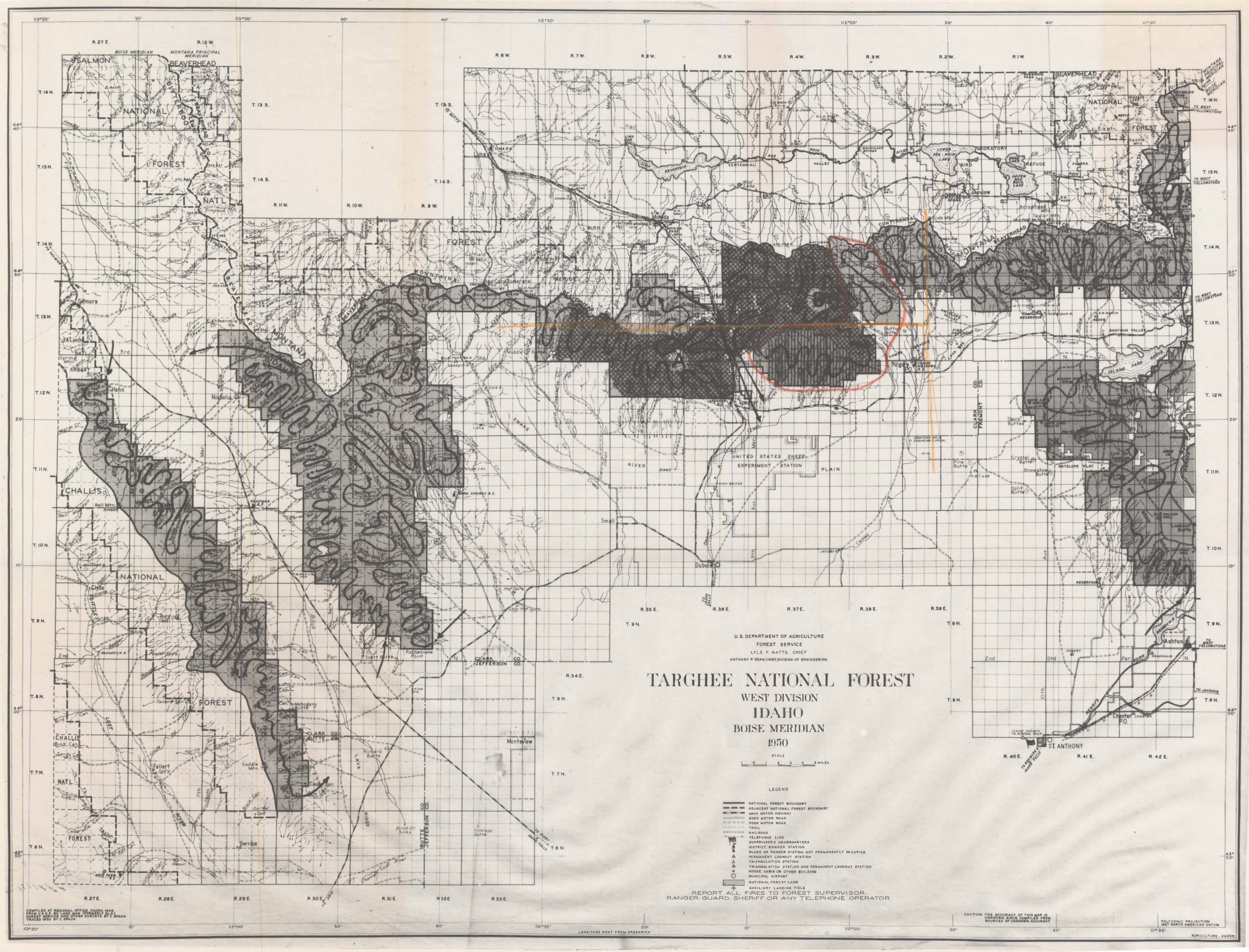
Area C. Several spot infestations of fir engraver in alpine fir were located in this area. The breakdown is as follows:

100 to 200 trees, Snider Creek
200 to 300 trees, Howard and Sheridan Creeks
200 to 300 trees, Kitty Creek

1/ Cole, W. E. Spruce budworm in southern Idaho - appraisal survey. August - September 1956. (Mimeographed IF&RES, Ogden, Utah).

Summary

The budworm infestation seemed to be increasing in extent but the intensity of damage has not reached serious proportions. The fir engraver appears to be more intensive this year in isolated spots. Douglas-fir bark beetle infestations remain at an endemic level. Several spots show an increasing trend of the mountain pine beetle in the lodgepole pine stands, but serious infestation of mountain pine beetle was observed that would warrant control action.


U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
LYLE F. WATTS, CHIEF
ANTHONY P. DEAN, CHIEF, DIVISION OF ENGINEERING
TARGHEE NATIONAL FOREST
WEST DIVISION
IDAHO
BOISE MERIDIAN
1950
SCALE
MILES
LEGEND
NATIONAL FOREST BOUNDARY
ADJACENT NATIONAL FOREST BOUNDARY
MAIN MOTOR HIGHWAY
GOOD MOTOR ROAD
POOR MOTOR ROAD
TRAIL
RAILROAD
TELEPHONE LINE
SUPERVISOR'S HEADQUARTERS
DISTRICT RANGER STATION
GUARD OR RANGER STATION NOT PERMANENTLY OCCUPIED
PERMANENT LOOKOUT STATION
TRIANGULATION STATION
TRIANGULATION STATION AND PERMANENT LOOKOUT STATION
HOUSE, CABIN OR OTHER BUILDING
MUNICIPAL AIRPORT
NATIONAL FOREST LAND
AUXILIARY LANDING FIELD
REPORT ALL FIRES TO FOREST SUPERVISOR,
RANGER GUARD, SHERIFF OR ANY TELEPHONE OPERATOR
COMPILED AT REGIONAL OFFICE OGDEN 1949
FROM U.S.G.S., BU. LAND MAN. (FORMERLY G.L.O.)
FOREST SERVICE AND OTHER SURVEYS BY C. SPAUN
TRACED 1950 BY C. SPAUN
LONGITUDE WEST FROM GREENWICH
CAUTION: THE ACCURACY OF THIS MAP IS UNKNOWN SINCE COMPILED FROM SOURCES OF UNKNOWN ACCURACY
POLYCONIC PROJECTION
1927 NORTH AMERICAN DATUM
AGRICULTURE - OGDEN
SALMON
BEAVERHEAD
NATIONAL
FOREST
NATL
CHALLIS
MONTANA
UNITED STATES SHEEP EXPERIMENT STATION
PLAIN
RIVER
SNAKE
Dubois
Small
Kilgore
Ashton
ST. ANTHONY
Chester
Monteview
Gilmore
Nicholia
Hahn
Clyde
Bernice
Mud Lake
ISLAND PARK
MIGRATORY BIRD REFUGE
CLARK
JEFFERSON
FREMONT
BUTTE
R.27 E.
R.28 E.
R.29 E.
R.30 E.
R.31 E.
R.32 E.
R.33 E.
R.34 E.
R.35 E.
R.36 E.
R.37 E.
R.38 E.
R.39 E.
R.40 E.
R.41 E.
R.42 E.
R.8 W.
R.7 W.
R.6 W.
R.5 W.
R.4 W.
R.3 W.
R.2 W.
R.1 W.
R.11 W.
R.10 W.
R.9 W.
T.16 N.
T.15 N.
T.14 N.
T.13 N.
T.12 N.
T.11 N.
T.10 N.
T.9 N.
T.8 N.
T.7 N.
T.6 N.
T.13 S.
T.14 S.
113°20'
113°00'
112°30'
112°00'
111°30'